

Serial No. 10/574,656

Docket No. K-0789

Amdt. dated December 10, 2009

Reply to Office Action of August 10, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A refrigerator, comprising:
 - a cold air duct configured to receive cold air circulating inside of a refrigerating chamber and/or a freezing chamber;
 - an evaporator in the cold air duct;
 - at least one defrosting heater in the cold air duct configured to selectively emit heat;
 - a fan in the cold air duct that selectively directs the cold air in an upward or downward direction;
 - a motor that drives the fan; and
 - an open/close device that selectively opens and closes a space containing the evaporator, the defrosting heater, and the fan positioned therein, wherein the space communicates with both the refrigerating chamber and the freezing chamber, and wherein the open/close device is configured to be rotated by a force of a flow of the cold air generated by rotation of the fan so that the opening or closing between the space and the refrigerating chamber and the space and the freezing chamber are performed by the open/close device simultaneously, wherein the open/close device comprises a first open/close part on an upper side of the space and a second open/close part on a lower side of the space, and wherein the fan is configured to be rotated in

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one direction to rotate the first open/close part and the second open/close part to open the space so that the cold air is directed into the refrigerating chamber and/or the freezing chamber during cooling and the fan is configured to be rotated in an opposite direction to rotate the first open/close part and the second open/close part to close the space so that a heat transmission from the defrosting heater to the refrigerating chamber and/or the freezing chamber is prevented during defrosting by an operation of the defrosting heater.

2. (Canceled).

3. (Currently Amended) The refrigerator as claimed in claim 2, wherein the first and second open/close parts each comprises:

a supporting plate having a plurality of openings; and

a plurality of rotating plates each having one side coupled to the supporting plate by a hinge, and the other side rotatable upward by a predetermined angle.

4. (Previously Presented) The refrigerator as claimed in claim 3, wherein each rotating plate comprises a thin plate that is rotated upward by a predetermined angle to open a respective opening of the plurality of openings.

5. (Currently Amended) The refrigerator as claimed in claim 3, wherein at least one

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of the rotating plate~~plates~~ covers an upper circumference of the respective opening to close the opening.

6. (Currently Amended) The refrigerator as claimed in claim 3, wherein at least one ~~of the rotating plate~~~~plates~~ is held by a rear end of an adjacent rotating plate and the supporting plate, to prevent the rotating plate from rotating downward.

7. (Original) The refrigerator as claimed in claim 1, wherein the fan is positioned over the evaporator.

8. (Previously Presented) The refrigerator as claimed in claim 1, wherein the defrosting heater is positioned between the fan and the evaporator.

9. (Original) The refrigerator as claimed in claim 1, wherein the defrosting heater is fabricated as one unit with the fan.

10. (Previously Presented) The refrigerator as claimed in claim 1, wherein the defrosting heater comprises:

a hot wire that functions as a resistance body connected to a power source for emission of heat; and

a film of an electrical insulating material surrounding the hot wire.

11. (Previously Presented) The refrigerator as claimed in claim 10, wherein the evaporator comprises:

at least one refrigerant pipe configured to receive a refrigerant that flows therethrough; and

a plurality of fins in contact with the at least one refrigerant pipe.

12. (Currently Amended) A refrigerator, comprising:

a cold air duct configured to receive cold air circulating inside of a refrigerating chamber and a freezing chamber;

an evaporator disposed in the cold air duct, the evaporator comprising at least one refrigerant pipe configured to receive a refrigerant that flows therethrough, and a plurality of fins in contact with the at least one refrigerant pipe;

at least one defrosting heater in contact with one or more of the plurality of fins for selective emission of heat; and

an open/close device provided at an upper portion and a lower portion of a space containing the evaporator and the defrosting heater positioned therein, that opens and closes the space[[],];

a fan in the space that selectively directs the cold air in an upward or downward direction;

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and

a motor that drives the fan, wherein the space communicates with both the refrigerating chamber and the freezing chamber, and wherein the open/close device is configured to be rotated so that the opening or closing between the space and the refrigerating chamber and the space and the freezing chamber are performed by the open/close device simultaneously, and wherein the open/close device comprises a first open/close part on an upper side of the space and a second open/close part on a lower side of the space, and wherein the fan is configured to be rotated in one direction to rotate the first open/close part and the second open/close part to open the space so that the cold air is directed into the refrigerating chamber and/or the freezing chamber during cooling and the fan is configured to be rotated in an opposite direction to rotate the first open/close part and the second open/close part to close the space so that a heat transmission from the defrosting heater to the refrigerating chamber and/or the freezing chamber is prevented during defrosting by an operation of the defrosting heater.

13. (Previously Presented) The refrigerator as claimed in claim 12, wherein the defrosting heater comprises:

a hot wire that functions as a resistance body connected to a power source for emission of heat; and

a film of an electrical insulating material surrounding the hot wire.

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14. (Previously Presented) The refrigerator as claimed in claim 13, wherein the hot wire is a bent carbon hot wire.

15. (Original) The refrigerator as claimed in claim 13, wherein the film is formed of PET material.

16. (Original) The refrigerator as claimed in claim 12, wherein the defrosting heater is a PTC device.

17. (Previously Presented) The refrigerator as claimed in claim 12, wherein the defrosting heater is attached to a surface of at least one of the plurality of fins.

18. (Previously Presented) The refrigerator as claimed in claim 12, wherein the defrosting heater is attached to one side of the plurality of fins.

19. (Previously Presented) The refrigerator as claimed in claim 12, wherein the defrosting heater has pass through holes for the at least one refrigerant pipe.

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20. (Previously Presented) The refrigerator as claimed in claim 12, wherein at least a portion of the plurality of fins have insertion slots in side surfaces configured to receive the defrosting heater.

21.-22. (Canceled).

23. (Currently Amended) The refrigerator as claimed in claim 22 12, wherein the open/close device comprises:

a supporting plate having a plurality of openings; and
a plurality of rotating plates each having one side coupled to one side of the supporting plate by a hinge, and the other side rotatable upward by a predetermined angle.

24. (Currently Amended) The refrigerator as claimed in claim 23, wherein at least one of the rotating plate-plates comprises a thin plate that is rotated upward by a predetermined angle to open a respective opening of the plurality of openings.

25. (Currently Amended) The refrigerator as claimed in claim 23, wherein at least one of the rotating plate-plates covers an upper circumference of the respective opening to close the opening.